

FIG. 1 is a block diagram of a system 100 for generating output images 109 from input models 101.

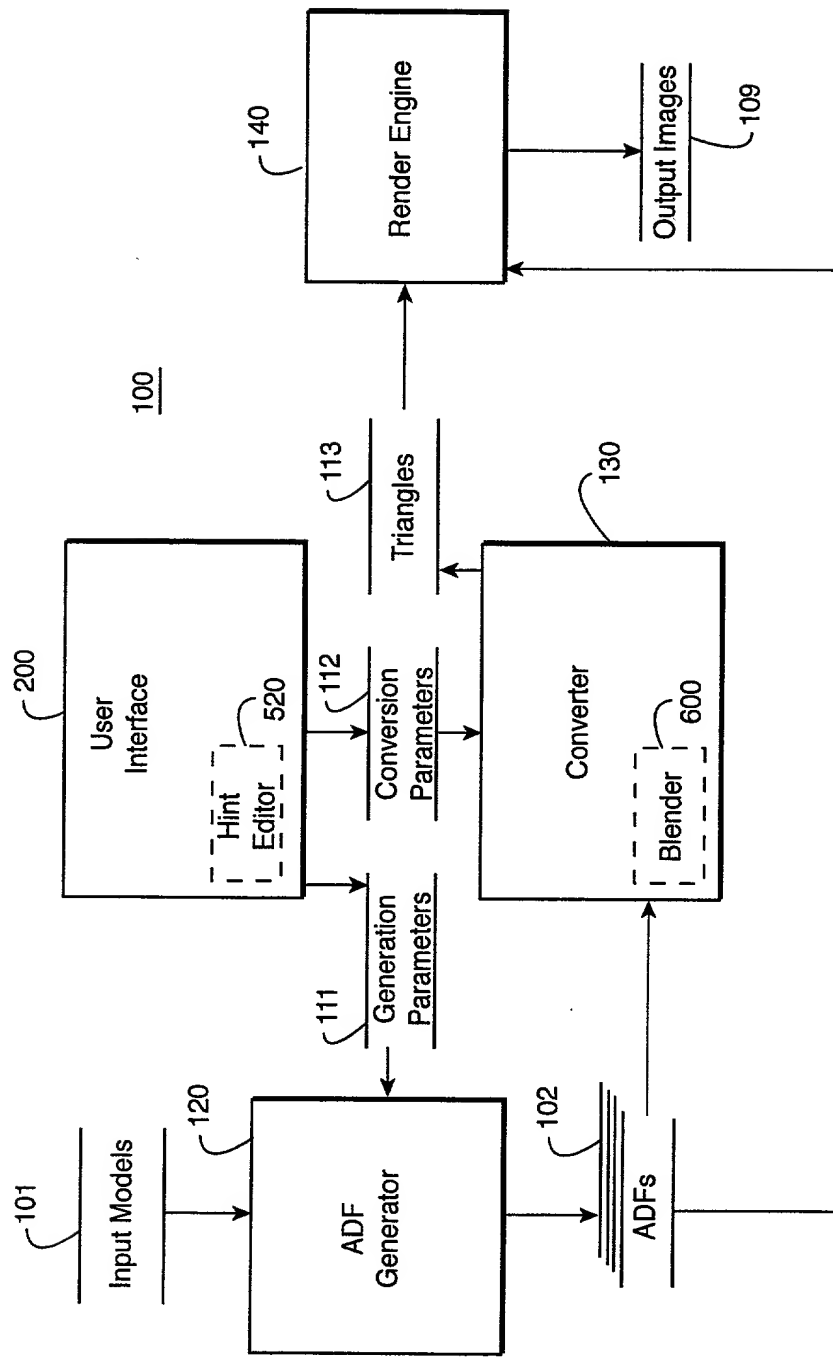
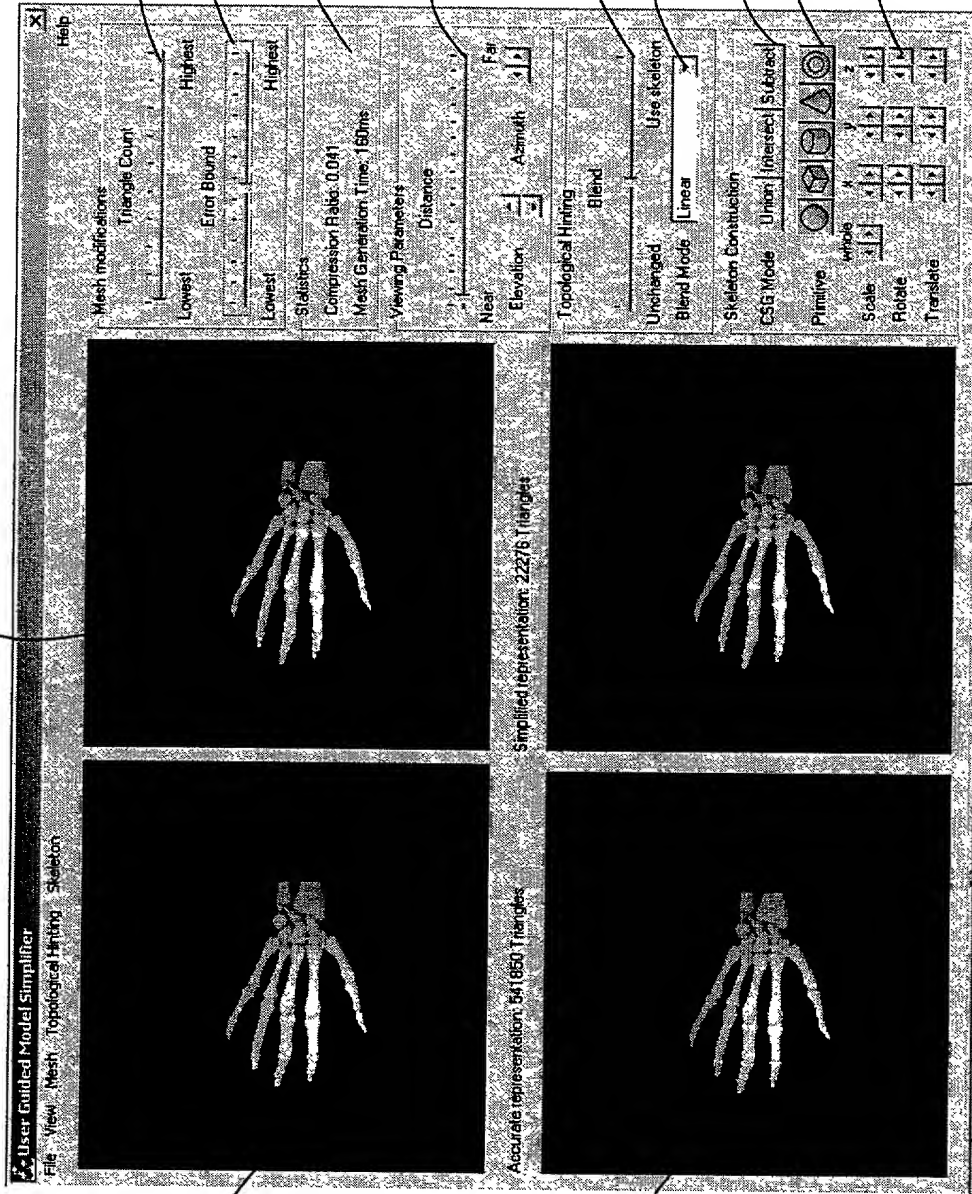


FIG. 1

FIG. 2 is a screenshot of a software interface for a 3D model simplification tool. The interface displays four views of a 3D model of a hand, showing the progression from an accurate representation to a simplified representation. The top view (201) shows the accurate representation with 541,850 triangles. The bottom-left view (202) shows the simplified representation with 222,76 triangles. The bottom-right view (203) shows the simplified representation with 222,76 triangles. The top-right view (204) shows the simplified representation with 222,76 triangles. The interface includes a menu bar (211) with options: File, View, Mesh, Topological Hiding, Skeleton, and Help. A toolbar (212) contains icons for various functions. A status bar (213) displays the current state of the model. A panel (214) on the right side of the interface contains various settings and options, including a 'Triangle Count' slider (215) ranging from 'Lowest' to 'Highest', an 'Error Bound' slider (216) ranging from 'Lowest' to 'Highest', and a 'Statistics' section showing 'Compression Ratio: 0.041' and 'Mesh Generation Time: 160ms'. Below these are 'Viewing Parameters' for 'Near', 'Far', 'Elevation', 'Azimuth', and 'Distance'. The 'Topological Hiding' section includes a 'Blend' dropdown menu (217) with options 'Unchanged', 'Blend Mode', and 'Use skeleton'. The 'Skeleton Construction' section includes a 'CSG Mode' dropdown menu (218) with options 'Union', 'Intersect', and 'Subtract'. The 'Primitive' section includes a 'Whole' checkbox (219) and a 'Scale' slider (220) ranging from '1' to '10'. The 'Rotate' section includes a 'Rotate' slider (221) ranging from '0' to '360'. The 'Translate' section includes a 'Translate' slider (222) ranging from '0' to '1000'.

203



201

202

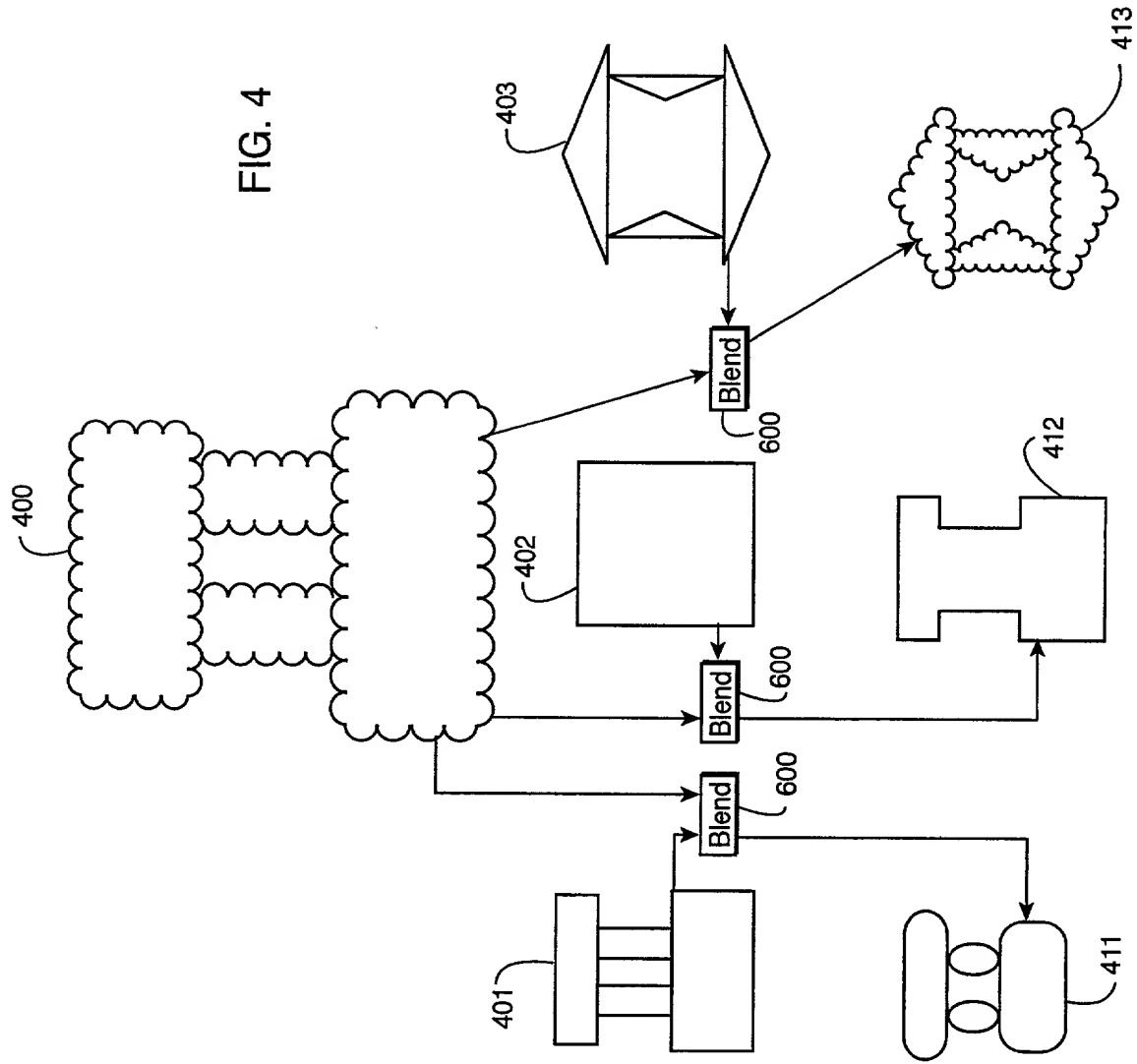
FIG. 2

200

204

Triangles	Cow	Triangles	Bunny
12	<10ms	502	<10ms
868	<10ms	2192	10ms
2010	10ms	21878	40ms
5202	10ms	69790	130ms
Triangles	CSG Object	Triangles	Hand
552	<10ms	12807	20ms
1848	10ms	49866	90ms
22584	40ms	197854	360ms
202564	360ms	541850	930ms

FIG. 3



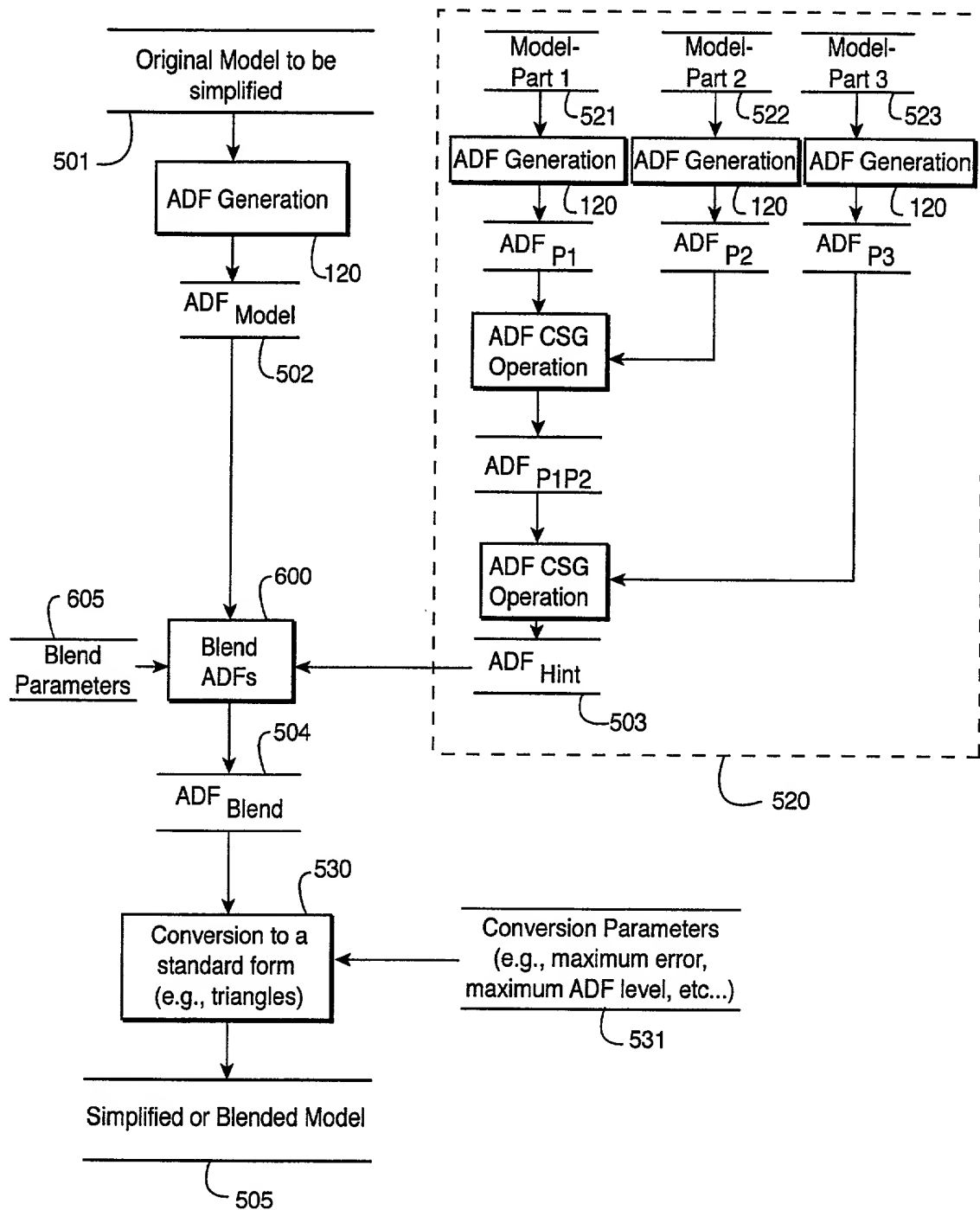


FIG. 5

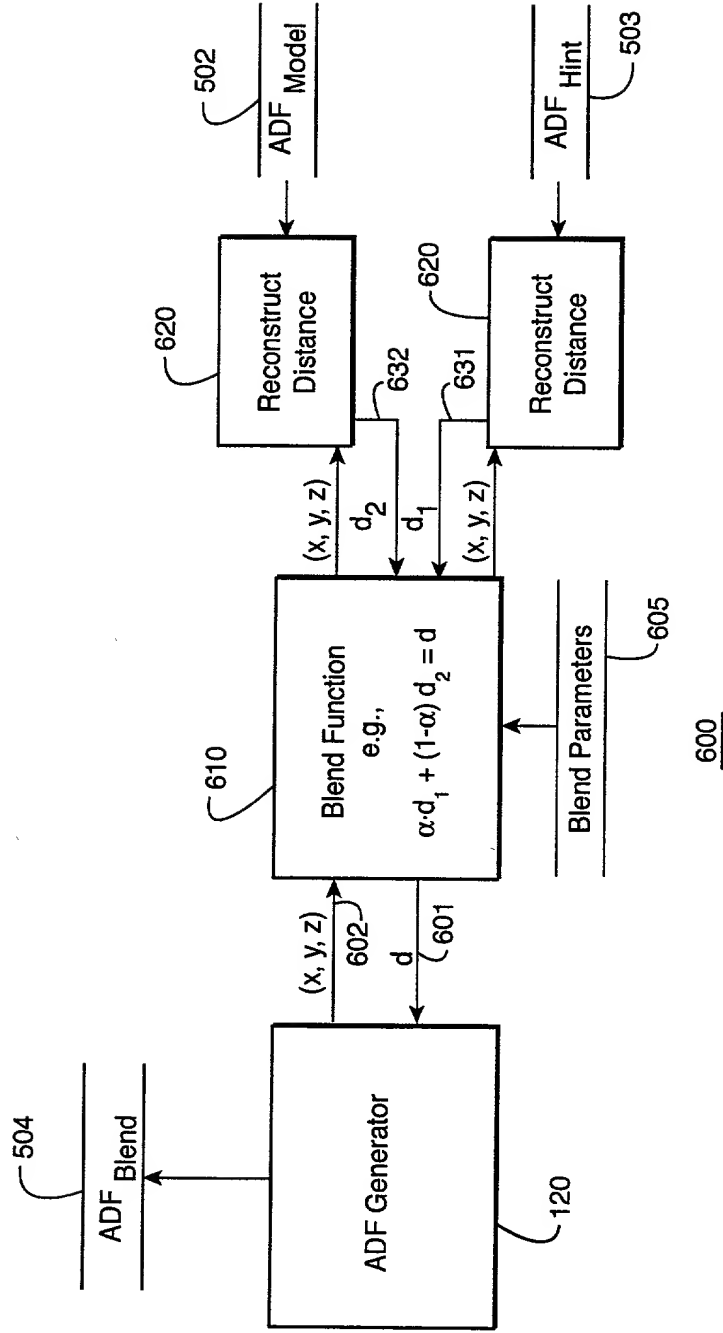


FIG. 6